1991 Subject Index

Actin
Actin filaments and photoreceptor membrane turnover 171.
High frequency force generation in outer hair cells from the mammalian ear 115.
Titin, A huge, elastic sarcomeric protein with a probable role in morphogenesis 157.
Actin in the *Drosophila* embryo: Is there a relationship to developmental cue localization? 199.
Structure and evolution of the actin-crosslinking proteins 219.
Mitosis-specific phosphorylation of caldesmon: Possible molecular mechanism of cell rounding during mitosis 563.
How do cells respond to ultrafine surface contours? 541.

α-Actinin
Structure and evolution of the actin-crosslinking proteins 219.

Adaptors – transcriptional
The interactions of transcription factors and their adaptors, coactivators and accessory proteins 499.

Ageing
Altered cellular responsiveness during ageing 601.

Agouti
Mouse coat colour mutations: A molecular genetic resource which spans the centuries 439.

Agrobacterium
Swimming against the tide: Chemotaxis in *Agrobacterium* 25.

Amplification
Drosophila chorion genes: Cracking the eggshell's secrets 97.

Angiogenesis
Inhibition of tumor angiogenesis as a strategy to circumvent acquired resistance to anti-cancer therapeutic agents 31.

Antibacterial proteins
Insect antibacterial proteins: Not just for insects and against bacteria 657.

Antirrhinum magus
Molecular genetics of floral development in *Arabidopsis thaliana* 347.

Antitrypsin deficiency
The molecular genetics of α_1 antitrypsin deficiency 163.

Arabidopsis
Molecular genetics of floral development in *Arabidopsis thaliana* 347.

ARS elements
Control of eukaryotic DNA replication at the chromosomal level 613.
Mapping replication origins in yeast chromosomes 317.

Atherogenesis
Biological activities of oxygenated sterols: Physiological and pathological implications 583.

ATP synthesis
Na^+-coupled alternate to H^+-coupled primary transport tystems in bacteria 463.

Attacins
Insect antibacterial proteins: Not just for insects and against bacteria 657.

Auditory sensing
High frequency force generation in outer hair cells from the mammalian ear 115.

Axon growth
Cells and cell-interactions that guide motor axons in the developing chick embryo 17.
The neuronal growth cone as a specialized transduction system 127.
Growth cone inhibition – an important mechanism in neural development? 11.

Bacterial energetics
Na^+-coupled alternate to H^+-coupled primary transport tystems in bacteria 463.

Bacterial motility
Swimming against the tide: Chemotaxis in *Agrobacterium* 25.

Blood clotting
Alternative splicing of fibronectin: Three variants, three functions 527.

Bone development
Parallels between development of embryonic and matrix-induced endochondral bone 403.

Bone marrow cells
Multidrug resistant transgenic mice as a novel pharmacologic tool 381.

Brain development
Telling right from left – more to it than meets the eye (or how to teach pigeons to read) 313.

Breast cancer
Molecular insights into breast cancer from mouse models 591.

Bristle development
The helix-loop domain: A common motif for bristles, muscles and sex 493.
Bristle patterning in *Drosophila* 633.

Ca^{2+} ions
Calcium channels and signal transduction in plant cells 331.
Inositol tetrakisphosphate as a second messenger: confusions, contradictions, and a potential resolution 419.
Late events in regulated exocytosis 397.

Cadherins
C-CAM (Cell-CAM 105) – a member of the growing immunoglobulin superfamily of cell adhesion proteins 227.

Caenorhabditis elegans
The role of cell death genes during development 389.
Telling right from left – more to it than meets the eye (or how to teach pigeons to read) 313.

Caldesmon
Mitosis-specific phosphorylation of caldesmon: Possible molecular mechanism of cell rounding during mitosis 563.

Cancer
Inhibition of tumor angiogenesis as a strategy to circumvent acquired resistance to anti-cancer therapeutic agents 31.
Animal cell shape changes and gene expression 207.
Gene expression, cellular diversification and tumor progression to the metastatic phenotype 337.
Molecular insights into breast cancer from mouse models 591.
Multidrug resistant transgenic mice as a novel pharmacologic tool 381.
The biology of cancer metastasis or, 'you cannot fix it if you do not know how it works' 551.

Caulobacter
Temporal and spatial regulation of developmentally expressed genes in *Caulobacter* 277.
***cdc2* Kinase**
Mitosis-specific phosphorylation of caldesmon: Possible molecular mechanism of cell rounding during mitosis 563.
Cell adhesion
Alternative splicing of fibronectin: Three variants, three functions 527.
Long-range morphogenetic signals and cell adhesion 665.
Cell adhesion molecules (CAMs)
The neuronal growth cone as a specialized transduction system 127.
Cell adhesion molecules
C-CAM (Cell-CAM 105) – a member of the growing immunoglobulin superfamily of cell adhesion proteins 227.
Cell cycle
Temporal and spatial regulation of developmentally expressed genes in *Caulobacter* 277.
Cell death genes
The role of cell death genes during development 389.
Cell membrane proteins
Animal cell shape changes and gene expression 207.
Cell movement
How do cells respond to ultrafine surface contours? 541.
Cell shape
Animal cell shape changes and gene expression 207.
Centromeres
The structure of the mammalian centromere 51.
Chromosomes, kinetochores and the microtubule connection 675.
Chemotaxis
Swimming against the tide: Chemotaxis in *Agrobacterium* 25.
Cholesterol
Biological activities of oxygenated sterols: Physiological and pathological implications 583.
Chorion genes
Drosophila chorion genes: Cracking the eggshell's secrets 97.
Chromatin states
Expression patterns of mouse Hox genes: Clues to an understanding of developmental and evolutionary strategies 505.
Chromatin structure
Control of the eukaryotic DNA replication at the chromosomal level 613.
Catalytic function of DNA topoisomerase II 269.
Histone H1 and the conformation of transcriptionally active chromatin 93.
Any which way but loose – Determining a transcription state in yeast 303.
Chromosome breaks
The role of DNA double strand breaks in ionizing radiation induced killing of eukaryotic cells 641.
Chromosome imprinting
Fragile X-linked mental retardation and the difficulties of reverse genetics 243.
Chromosome structure
My favorite cells with large chromosomes 479.
Structure-function relationships in eukaryotic nuclei 1.
The structure of the mammalian centromere 57.
Cilia
The discovery of the 9+2 structure of flagella/cilia 363.
Cnidaria
Control of metamorphosis and pattern formation in Hydractinia (Hydrozoa, Cnidaria) 323.
Coat color genes
Mouse coat colour mutations: A molecular genetic resource which spans the centuries 439.
Cockayne's syndrome
DNA excision repair in mammalian cell extracts 447.
Co-enzyme binding
New enzymes for old: redesigning the coenzyme and substrate specificies of glutathione reductase 515.
Competence
Lethal chromosomal deletions in the mouse, a model system for the study of development and regulation of postnatal gene expression 557.
Contig mapping
YACs and the *C. elegans* genome 413.
Corpus luteum
A role for interferons in early pregancy 121.
CSF-1
Role of colony stimulating factor-1 (CSF-1) and other lympho-hematopoietic growth factors in mouse preimplantation development 535.
Cyanobacteria
An ancient intron in eubacteria: New light on intron origins 183.
Cytochrome P450
Transgenic *Drosophila* as an *in vivo* model for studying mammalian drug metabolism 683.
Cytogenetics
Fragile X-linked mental retardation and the difficulties of reverse genetics 243.
Cytoplasmic anchors
Animal cell shape changes and gene expression 207.
Transport across the nuclear envelope: Enigmas and explanations 213.
Cytoskeleton
High freguency force generation in outer hair cells from the mammalian ear 115.
Animal cell shape changes and gene expression 207.
Actin in the *Drosophila* embryo: Is there a relationship to developmental cue localization? 197.
Molecular interactions in intermediate filaments 597.
Defensins
Insect antibacterial proteins: Not just for insects and against bacteria 657.
Differential splicing
Alternative splicing of fibronectin: Three variants, three functions 527.
Diuretic hormones
The fastest fluid-secreting cell known: The upper Malpighian tubule cell of *Rhodnius* 357.
DNA-binding proteins
The interactions of transcription factors and their adaptors, coactivators and accessory proteins 499.
DNA repair
Eukaryotic DNA repair: Glimpses through the yeast *Saccharomyces cerevisiae* 295.
DNA excision repair in mammalian cell extracts 447.
The role of DNA double strand breaks in ionizing radiation induced killing of eucaryotic cells 641.
DNA replication
Structure-function relationships in eukaryotic nuclei 1.
Drosophila chorion genes: Cracking the eggshell's secrets 97.

The 'A rule' of mutagen specificity: a consequence of DNA polymerase bypass of non-instructional lesions? 85.
Control of eukaryotic DNA replication at the chromosomal level 613.
Catalytic function of DNA topoisomerase II 269.

DNA structure
The discovery of a single-stranded, circular DNA genome 95.

DNA topoisomerase II
Catalytic function of DNA topoisomerase II 269.

Drosophila
Actin in the *Drosophila* embryo: Is there a relationship to developmental cue localization? 199.
Drosophila chorion genes: Cracking the eggshell's secrets 97.
Gap genes and gradients – The logic behind the gaps 261.
Bristle patterning in *Drosophila* 633.
Drosophila epithelial rearrangement and *Drosophila* gastrulation 409.
Transgenic *Drosophila* as an *in vivo* model for studying mammalian drug metabolism 683.
Why is Mendelian segregation so exact? 305.
Specification of cell fate in the developing eye of *Drosophila* 621.

Drug metabolism
Transgenic *Drosophila* as an *in vivo* model for studying mammalian drug metabolism 683.

Dystrophin
Structure and evolution of the actin-crosslinking proteins 219.

Electrophoresis
High performance capillary electrophoresis of biomolecules 253.

Embryogenesis
Actin in the *Drosophila* embryo: Is there a relationship to developmental cue localization? 199.
Parallels between development of embryonic and matrix-induced endochondral bone 403.
Expression patterns of mouse Hox genes: Clues to an understanding of developmental and evolutionary strategies 505.
Development of the mammalian gonad: The fate of the supporting cell lineage 151.

Endoparasitoids
Immune defense and suppression in insects 343.

Endoplasmic reticulum (ER)
The molecular genetics of α_1 antitrypsin deficiency 163.

Endothelial cells
Inhibition of tumor angiogenesis as a strategy to circumvent acquired resistance to anti-cancer therapeutic agents 31.

Enhancer trps
Gene targeting and gene trap screens using embryonic stem cells: New approaches to mammalian development 649.

Epidermal growth factor (EGF)
Selective phospholipase C activation 107.

ES cells
Gene targeting and gene trap screens using embryonic stem cells: New approaches to mammalian development 649.

Exocytosis
Late events in regulated exocytosis 397.

Exons
Identifying genes within the genome: New ways for finding the needle in a haystack 139.
Exons – Original building blocks of proteins 185.

Extracellular matrix (ECM)
The neuronal growth cone as a specialized transduction system 127.

Eye development
Specification of cell fate in the developing eye of *Drosophila* 621.

Fibronectin
Alternative splicing of fibronectin: Three variants, three functions 527.

Flagella
The discovery of the 9+2 structure of flagella/cilia 363.

Flavonoids
Transduction of plant signal molecules by the rhizobium NodD proteins 575.

Flavoproteins
New enzymes for old: redesigning the coenzyme and substrate specificities of glutathione reductase 515.

Floral development
Molecular genetics of floral development in *Arabidopsis thaliana* 347.

Follicle stimulation hormone (FSH)
Intercommunication between mammalian oocytes and companion somatic cells 569.

Fragile X
Fragile X-linked mental retardation and the difficulties of reverse genetics 243.

Frameshift mutations
The 'A rule' of mutagen specificity: a consequence of DNA polymerase bypass of non-instructional lesions? 85.

Functional redundancy
Gap genes and gradients – The logic behind the gaps 261.

GAL4
The transactivator GAL4: Co-activators, adaptors and chromatin 241.

Gap genes
Gap genes and gradients – The logic behind the gaps 261.

Gastrulation
Actin in the *Drosophila* embryo: Is there a relationship to developmental cue localization? 199.
Drosophila epithelial rearrangement and *Drosophila* gastrulation 409.

Gene expression kinetics
The kinetics of mammalian gene expression 667.

Gene structure
Insect antibacterial proteins: Not just for insects and against bacteria 657.
Alternative splicing of fibronectin: Three variants, three functions 527.
An ancient intron in eubacteria: New light on intron origins 185.
The molecular basis for tropomyosin isoform diversity 429.

Gene targeting
Gene targeting and gene trap screens using embryonic stem cells: New approaches to mammalian development 649.

Gene therapy
Multidrug resistant transgenic mice as a novel pharmacologic tool 381.

Genetic defects
First international symposium on preimplantation genetics, Chicago, 14–19 September, 1990 45.
The molecular genetics of α_1 antitrypsin deficiency 163.

Genetic recombination
My favorite cells with large chromosomes 479.
Three-stranded DNA helices as intermediates in genetic recombination 37.

Genome mapping: PCR based meiotic and somatic cell hybrid analysis 191.
Genome mapping
Combinatoric strategies for genome mapping 39.
Genome mapping: PCR based meiotic and somatic cell hybrid analysis 193.
Identifying genes within the genome 139.
Fragile X-linked mental retardation and the difficulties of reverse genetics 243.
YACs and the *C. elegans* genome 413.
Transfer of yeast artifical chromosomes from yeast to mammalian cells 545.
Genomic instability
Inhibition of tumor angiogenesis as a strategy to circumvent acquired resistance to anti-cancer therapeutic agents 31.
Altered cellular responsiveness during ageing 601.
Germ line development
Development of the mammalian gonad: The fate of the supporting cell lineage 151.
Gliogenesis
Neural repair and glial proliferation: Parallels with gliogenesis in insects 71.
Glutathione reductase
New enzymes for old: redesigning the coenzyme and substrate specificities of glutathione reductase 515.
G-proteins
Long-range morphogenetic signals and cell adhesion 665.
Gradients
Gap genes and gradients – The logic behind the gaps 261.
Growth cones
Cells and cell-interactions that guide motor axons in the developing chick embryo 17.
The neuronal growth cone as a specialized transduction system 127.
Growth cone inhibition – an important mechanism in neural development? 11.
Growth Cones: The mechanism of neurite advance 235.
Growth factors
Altered cellular responsiveness during ageing 601.
Role of colony stimulating factor-1 (CSF-1) and other lympho-hematopoietic growth factors in mouse pre-implantation development 535.
Heat shock proteins
Steroid hormone receptors and *in vitro* transcription 79.
Hemolymph proteins
Immune defense and suppression in insects 343.
Hepatocyte development
Lethal chromosomal deletions in the mouse, a model system for the study of development and regulation of postnatal gene expression 557.
Herpes simplex virus
The interactions of transcription factors and their adaptors, coactivators and accessory proteins 499.
High performance capillary electrophoresis
High performance capillary electrophoresis of biomolecules 253.
Histone H1
Transport across the nuclear envelope: Enigmas and explanations 213.
Histone H1 and the conformation of transcriptionally active chromatin 87.
HLH proteins
The helix-loop domain: A common motif for bristles, muscles and sex 493.
HMG-CoA reductase
Biological activities of oxygentaed sterols: Physiological and pathological implications 583.
Homeostasis
Altered cellular responsiveness during ageing 601.
Hormonal regulation
Lethal chromosomal deletions in the mouse, a model system for the study of development and regulation of postnatal gene expression 557.
***Hox* genes**
Expression patterns of mouse hox genes: Clues to an understanding of developmental and evolutionary strategies 505.
hsdr
Lethal chromosomal deletions in the mouse, a model system for the study of development and regulation of postnatal gene expression 557.
HTLV-1
Functional disection of a viral transactivator 91.
hunchback (hb)
Gap genes and gradients – The logic behind the gaps 261.
Hydractinia echinata
Control of metamorphosis and pattern formation in *Hydractinia* (Hydrozoa, Cnidaria) 323.
Immunoglobulin superfamily
Insect antibacterial proteins: Not just for insects and against bacteria 657.
Inositol phosphates
Inositol tetrakisphosphate as a second messenger: confusions, contradictions, and a potential resolution 419.
Insect immune systems
Immune defense and suppression in insects 343.
Insertional mutagenesis
Gene targeting and gene trap screens using embryonic stem cells: New approaches to mammalian development 649.
Integrins
Laminin binding proteins 469.
Intercellular transport
How do plant virus nucleic acids move through intercellular connections? 373.
Interferons
A role for interferons in early pregnancy 121.
Intermediate filaments
Molecular interactions in intermediate filaments 597.
Introns
An ancient intron in eubacteria: New light on intron origins 185.
Ion transport
The fastest fluid-secreting cell known: The upper malpighian tubule cell of rhodnius 357.
Inositol tetrakisphosphate as a second messenger: confusions, contradictions, and a potential resolution 419.
Na^+-coupled alternate to H^+-coupled primary transport tystems in bacteria 463.
Ionizing radiation
The role of DNA double strand breaks in ionizing radiation induced killing of eucaryotic cells 641.
Isoform diversity
The molecular basis for tropomyosin isoform diversity 429.
Keratins
Molecular interactions in intermediate filaments 597.
Kruppel (Kr)
Gap genes and gradients – The logic behind the gaps 261.
Laminin binding proteins
Laminin binding proteins 469.

Lateral inhibition
Bristle patterning in *Drosophila* 633.
Left-right asymmetry
Telling right from left – more to it than meets the eye (or how to teach pigeons to read) 313.
Ig-superfamily
C-CAM (Cell-CAM 105) – a member of the growing immunoglobulin superfamily of cell adhesion proteins 227.
Ligand–receptor interactions
Steroid hormone receptors and *in vitro* transcription 79.
Low density lipoprotein (LDL)
Biological activities of oxygentaed sterols: Physiological and pathological implications 583.
Lympho-hematopoiesis
Role of colony stimulating factor-1 (CSF-1) and other lympho-hematopoietic growth factors in mouse pre-implantation development 535.
Malpighian tubule cells
The fastest fluid-secreting cell known: The upper Malpighian tubule cell of *Rhodnius* 357.
Mammalian cells
Mitotic recombination in mammals 351.
DNA excision repair in mammalian cell extracts 447.
The role of DNA double strand breaks in ionizing radiation induced killing of eukaryotic cells 641.
Transfer of yeast artifical chromosomes from yeast to mammalian cells 545.
Gene targeting and gene trap screens using embryonic stem cells: New approaches to mammalian development 649.
Mammalian development
Mouse coat colour mutations: A molecular genetic resource which spans the centuries 439.
Sex and the single Y 475.
Mast cells
Late events in regulated exocytosis 397.
Maternal mRNAs
Translational control during early development 177.
Mating type loci
Any which way but loose – Determining a transcription state in yeast 303.
Meiotic drive
Why is Mendelian segregation so exact? 305.
Maintaining Mendelism: is prevention better than cure? 489.
Melanin
Mouse coat colour mutations: A molecular genetic resource which spans the centuries 439.
Mendelian segregation
Why is Mendelian segregation so exact? 305.
Metamorphosis
Control of metamorphosis and pattern formation in *Hydractinia* (Hydrozoa, Cnidaria) 323.
The role of cell death genes during development 389.
Metastasis
Gene expression, cellular diversification and tumor progression to the metastatic phenotype 337.
The biology of cancer metastasis or, 'you cannot fix it if you do not know how it works' 551.
Methylation
Fragile X-linked mental retardation and the difficulties of reverse genetics 243.
Microtubule associated proteins (MAPs)
Growth cones: The mechanism of neurite advance 235.
Microtubules
Growth cones: The mechanism of neurite advance 235.
The structure of the mammalian centromere 57.
Stabilization and post-translational modification of microtubules during cellular morphogenesis 285.
The discovery of the 9+2 structure of flagella/cilia 363.
Chromosomes, kinetochores and the microtubule connection 675.
Mitosis
Mitosis-specific phosphorylation of caldesmon: Possible molecular mechanism of cell rounding during mitosis 563.
Chromosomes, kinetochores and the microtubule connection 675.
Mitotic recombination
Mitotic recombination in mammals 351.
Molecular evolution
Exons – Original building blocks of proteins 185.
An ancient intron in eubacteria: New light on intron origins 183.
Expression patterns of mouse Hox genes: Clues to an understanding of developmental and evolutionary strategies 505.
Morphogenesis
Actin filaments and photoreceptor membrane turnover 169.
Drosophila rearrangement and *Drosophila* gastrulation 409.
Mouse development
Development of the mammalian gonad: The fate of the supporting cell lineage 151.
First international symposium on preimplantation genetics, Chicago, 14–19 September, 1990 45.
Mitotic recombination in mammals 351.
Molecular insights into breast cancer from mouse models 591.
Mouse coat colour mutations: A molecular genetic resource which spans the centuries 439.
Role of colony stimulating factor-1 (CSF-1) and other lympho-hematopoietic growth factors in mouse pre-implantation development 535.
Gene targeting and gene trap screens using embryonic stem cells: New approaches to mammalian development 649.
Intercommunication between mammalian oocytes and companion somatic cells 569.
Lethal chromosomal deletions in the mouse, a model system for the study of development and regulation of postnatal gene expression 557.
Expression patterns of mouse Hox genes: Clues to an understanding of developmental and evolutionary strategies 505.
XIST and the mapping of the X chromosome inactivation centre 607.
Mouse development
Sex and the single Y 475.
Movement proteins
How do plant virus nucleic acids move through intercellular connections? 373.
Multidrug resistance
Multidrug resistant transgenic mice as a novel pharmacologic tool 381.
Muscle development
Titin, A huge, elastic sarcomeric protein with a probable role in morphogenesis 157.
The molecular basis for tropomyosin isoform diversity 429.
The role of cell death genes during development 389.

The helix-loop domain: A common motif for bristles, muscles and sex 493.

Mutation
The 'A rule' of mutagen specificity: a consequence of DNA polymerase bypass of non-instructional lesions? 85.

MyoD
The helix-loop domain: A common motif for bristles, muscles and sex 493.

Neural development
Cells and cell-interactions that guide motor axons in the developing chick embryo 17.
Neural repair and glial proliferation: Parallels with gliogenesis in insects 71.
Growth cone inhibition – an important mechanism in neural development? 11.
Bristle patterning in *Drosophila* 633.
The neuronal growth cone as a specialized transduction system 127.

NF-kB protein
Animal cell shape changes and gene expression 207.
Transport across the nuclear envelope: Enigmas and explanations 213.

nodD
Transduction of plant signal molecules by the rhizobium NodD proteins 575.

Nuclear envelope
Transport across the nuclear envelope: Enigmas and explanations 213.

Nucleoid structure
Temporal and spatial regulation of developmentally expressed genes in *Caulobacter* 277.

Oncogenes
Gene expression, cellular diversification and tumor progression to the metastatic phenotype 337.
Molecular insights into breast cancer from mouse models 591.

Oocytes
Translational control during early development 177.
Intercommunication between mammalian oocytes and companion somatic cells 569.

Organ of Corti
High freguency force generation in outer hair cells from the mammalian ear 115.

Ovarian follicles
Intercommunication between mammalian oocytes and companion somatic cells 569.

Oxide reductases
New enzymes for old: redesigning the coenzyme and substrate specificities of glutathione reductase 515.

Pattern formation
Control of metamorphosis and pattern formation in *Hydractinia* (Hydrozoa, Cnidaria) 323.
Specification of cell fate in the developing eye of *Drosophila* 621.
Telling right from left – more to it than meets the eye (or how to teach pigeons to read) 313.
Bristle patterning in *Drosophila* 633.

ϕX174
The discovery of a single-stranded, circular DNA genome 95.

Phosphoinositides
Selective phospholipase C activation 107.

Photoreceptor cells
Actin filaments and photoreceptor membrane turnover 169.
Specification of cell fate in the developing eye of *Drosophila* 621.

Plant cells
Calcium channels and signal transduction in plant cells 331.

Plasmid replication
Control of eukaryotic DNA replication at the chromosomal level 613.

Plasmodesmata
How do plant virus nucleic acids move through intercellular connections? 373.

Polyadenylation
Translational control during early development 177.

Polymerase chain reactin (PCR)
Genome mapping: PCR based meiotic and somatic cell hybrid analysis 193.

Polyubiquitin
The role of cell death genes during development 389.

Post-translational modification
Stabilzation and post-translational modification of microtubules during cellular morphogenesis 285.

Pregnancy
A role for interferons in early pregnancy 121.

Preimplantation development
First international symposium on preimplantation genetics, Chicago, 14–19 September, 1990 45.
Role of colony stimulating factor-1 (CSF-1) and other lympho-hematopoietic growth factors in mouse preimplantation development 535.

Protein assembly
Molecular interactions in intermediate filaments 597.

Protein engineering
New enzymes for old: redesigning the coenzyme and substrate specificities of glutathione reductase 515.

Protein phosphorylation
Molecular interactions in intermediate filaments 597.
Specification of cell fate in the developing eye of *Drosophila* 621.
Translational control during early development 177.
Mitosis-specific phosphorylation of caldesmon: Possible molecular mechanism of cell rounding during mitosis 563.

Protein structure
Titin, A huge, elastic sarcomeric protein with a probable role in morphogenesis 157.
The molecular genetics of α_1 antitrypsin deficiency 163.
Exons – Original building blocks of proteins 185.
Molecular interactions in intermediate filaments 597.

Protein translation system
Na^+-coupled alternate to H^+-coupled primary transport tystems in bacteria 463.

Protein turnover
The kinetics of mammalian gene expression 667.

Receptors
Transport across the nuclear envelope: Enigmas and explanations 213.
Laminin binding proteins 469.

Repeated sequences
Genome mapping: PCR based meiotic and somatic cell hybrid analysis 193.

Replication origins
Control of eukaryotic DNA replication at the chromosomal level 613.
Mapping replication origins in yeast chromosomes 317.

Retinotecal mapping
Growth cone inhibition – an important mechanism in neural development? 11.

Rhizobium
Transduction of plant signal molecules by the rhizobium NodD proteins 575.
Rhodnius prolixus
The fastest fluid-secreting cell known: The upper Malpighian tubule cell of *Rhodnius* 357.
RNA processing
Structure–function relationships in eukaryotic nuclei 1.
Assembly and intracellular transport of snRNP particles 63.
RNA turnover
The kinetics of mammalian gene expression 667.
RNA viruses
How do plant virus nucleic acids move through intercellular connections? 373.
Saccharomyces cerevisiae
Any which way but loose – Determining a transcription state in yeast 303.
Mapping replication origins in yeast chromosomes 317.
Transfer of yeast artifical chromosomes from yeast to mammalian cells 545.
Control of eukaryotic DNA replication at the chromosomal level 613.
The transactivator GAL4: Co-activators, adaptors and chromatin 241.
S-adenosylmethionine (SAM)
Control of metamorphosis and pattern formation in *Hydractinia* (Hydrozoa, Cnidaria) 323.
Secretory pathway
The molecular genetics of α-1 antitrypsin deficiency 163.
Segregation Distorter system
Why is Mendelian segregation so exact? 305.
Sertoli cells
Development of the mammalian gonad: The fate of the supporting cell lineage 151.
Sex determination
Development of the mammalian gonad: The fate of the supporting cell lineage 151.
Sex and the single Y 475.
Signal transduction
The neuronal growth cone as a specialized transduction system 127.
Swimming against the tide: Chemotaxis in *Agrobacterium* 25.
Selective phospholipase C activation 107.
Animal cell shape changes and gene expression 207.
Calcium channels and signal transduction in plant cells 331.
Mouse coat colour mutations: A molecular genetic resource which spans the centuries 439.
Long-range morphogenetic signals and cell adhesion 665.
snRNP particles
Assembly and intracellular transport of snRNP particles 63.
Sodium translocation systems
Na^+-coupled alternate to H^+-coupled primary transport tystems in bacteria 463.
Somites
Cells and cell-interactions that guide motor axons in the developing chick embryo 17.
Growth cone inhibition – an important mechanism in neural development? 11.
Spectrin
Structure and evolution of the actin-crosslinking proteins 219.
Spliceosomes
Assembly and intracellular transport of snRNP particles 63.
Stem cells
Stem cells and the elixir of life 135.
Steroid hormone receptors
Steroid hormone receptors and *in vitro* transcription 79.
The interactions of transcription factors and their adaptors, coactivators and accessory proteins 499.
Sterols
Biological activities of oxygentaed sterols: Physiological and pathological implications 583.
Titin
Titin, A huge, elastic sarcomeric protein with a probable role in morphogenesis 157.
Tonoplast
Calcium channels and signal transduction in plant cells 331.
Tradescantia
My favorite cells with large chromosomes 479.
Transcribed sequences
Identifying genes within the genome: New ways for finding the needle in a haystack 139.
Transcriptional control
The molecular genetics of α_1 antitrypsin deficiency 163.
Transcriptional regulation
Structure–function relationships in eukaryotic nuclei 1.
Drosophila chorion genes: Cracking the eggshell's secrets 97.
Steroid hormone receptors and *in vitro* transcription 79.
Gap genes and gradients – The logic behind the gaps 261.
Temporal and spatial regulation of developmentally expressed genes in *Caulobacter* 277.
Functional disection of a viral transactivator 91.
Histone H1 and the conformation of transcriptionally active chromatin 87.
Transduction of plant signal molecules by the *Rhizobium* NodD proteins 575.
The interactions of transcription factors and their adaptors, coactivators and accessory proteins 499.
The transactivator GAL4: Co-activators, adaptors and chromatin 241.
The kinetics of mammalian gene expression 667.
Any which way but loose – Determining a transcription state in yeast 303.
Lethal chromosomal deletions in the mouse, a model system for the study of development and regulation of postnatal gene expression 557.
XIST and the mapping of the X chromosome inactivation centre 607.
Transgenic mice
Molecular insights into breast cancer from mouse models 591.
Multidrug resistant transgenic mice as a novel pharmacologic tool 381.
Transfer of yeast artifical chromosomes from yeast to mammalian cells 545.
Translational control
Translational control during early development 177.
tRNA genes
An ancient intron in eubacteria: New light on intron origins 183.
Tropomyosins
The molecular basis for tropomyosin isoform diversity 429.
α-Tubulin
Stabilization and post-translational modification of microtubules during cellular morphogenesis 285.

Tumor suppressor genes
Gene expression, cellular diversification and tumor progression to the metastatic phenotype 337.
twist
Neural repair and glial proliferation: Parallels with gliogenesis in insects 71.
Tyrosine kinases
Specification of cell fate in the developing eye of *Drosophila* 621.
Vicia faba
My favorite cells with large chromosomes 479.
Viruses
How do plant virus nucleic acids move through intercellular connections? 373.
Virus-like particles
Immune defense and suppression in Insects 343.
White-spotting (W)
Mitotic recombination in mammals 351.
Xeroderma pigmentosum
DNA excision repair in mammalian cell extracts 447.
X-inactivation centre (XIST)
XIST and the mapping of the X chromosome inactivation centre 607.
YACs
Transfer of yeast artificial chromosomes from yeast to mammalian cells 545.
XIST and the mapping of the X chromosome inactivation centre 607.
Fragile X-linked mental retardation and the difficulties of reverse genetics 243.
Identifying genes within the genome: New ways for finding the needle in a haystack 139.